

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/058166 A1

(51) International Patent Classification⁷: **A61B 8/00**

(74) Agents: **JONES, David, Colin** et al.; Withers & Rogers
LLP, Golding House, 2 Hays Lane, London SE1 2HW
(GB).

(21) International Application Number:
PCT/GB2004/005228

(22) International Filing Date:
14 December 2004 (14.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0329019.4 15 December 2003 (15.12.2003) GB

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **IMPERIAL COLLEGE INNOVATIONS LTD.** [GB/GB]; Imperial College London, Electrical and Electronic Engineering Building, South Kensington Campus, London SW7 2BT (GB).

(72) Inventors; and

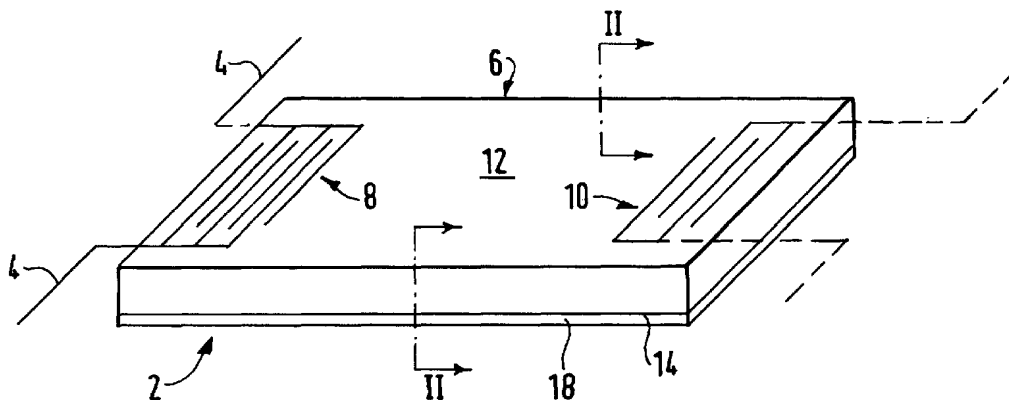
(75) Inventors/Applicants (*for US only*): **TOUMAZOU, Christopher** [GB/GB]; 8 Barrett Street, Oxford OX2 0AT (GB). **MCLEOD, Christopher, Neil** [GB/GB]; 62 Sandfield Road, Headington, Oxford OX3 7RJ (GB). **VANDEVOORDE, Glenn, Noel, Robert** [BE/SG]; 301 Tanjong Rhu Road, #13-10 Parkshore, Singapore 436917 (SG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ACOUSTIC WAVE DEVICES



(57) Abstract: A surface or bulk acoustic wave device can be implanted in or worn on a human or animal body to monitor various parameters thereof. The device comprises a pair of interdigitated transducers spaced apart over the surface of a piezo-electric substrate that is exposed to the parameter to be monitored. The device is interrogated by a radio-frequency signal being supplied to one of the transducers and detected after reflection by the other transducer. The parameter is measured by comparison of the supplied and received signals.

WO 2005/058166 A1